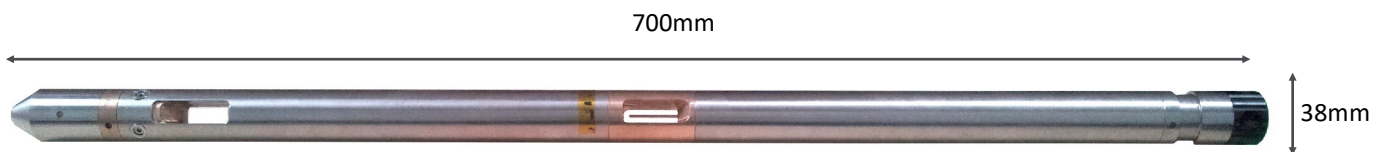




TEMPERATURE & CONDUCTIVITY TOOL

Tool overview

There is a natural geothermal gradient of increasing temperature (T) with depth. This gradient varies with the thermal conductivity of the geological formation and is modified by water flowing in, out or vertically through the borehole. The electrical conductivity (EC) of water is related to its salinity and dissolved solids and is therefore a measure of the quality of the borehole water. Changes in the log profile indicate inflows or outflows of differing quality waters. Using data from the temperature log, the electrical conductivity is corrected to 25 °C (EC25). Differential logs are produced and may be used as an interpretative aid to detect gradient changes. The boreholes should have been developed and the fluid allowed to approach equilibrium with the groundwater system before logging is carried out.



Features and benefits

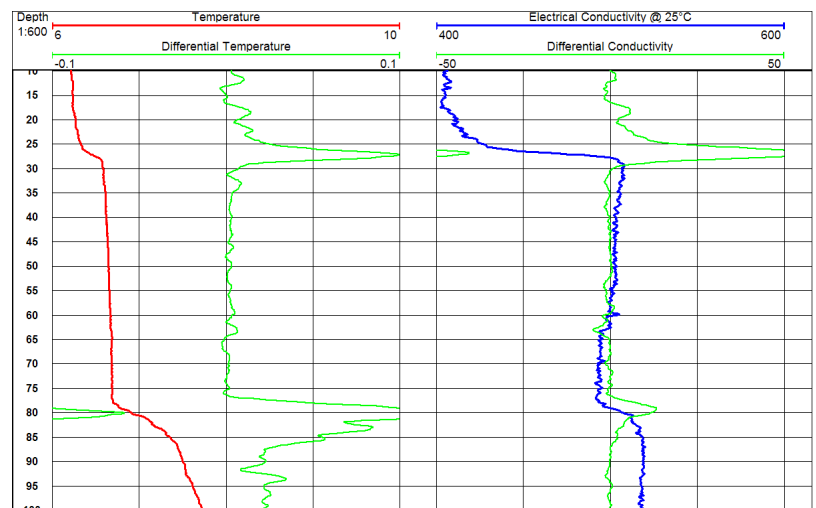
- Measures variations in the temperature and conductivity of borehole fluid.

Logging conditions

2–9m/min

Borehole Conditions

Minimum diameter 50mm
Fluid filled
Unlined or lined



Example Temperature and Electrical Conductivity Log showing points of fissure flow

Specifications

Size	700mm x 38mm
Weight	3.5 kg
Temperature range	2°–80°C
Conductivity range	5-50000μS/cm
Max. Temperature	80°C
Max. pressure	20MPa

Why European Geophysical Services?

European Geophysical Services offers excellent and reliable field service coupled with many years of geophysical interpretation experience, efficient data processing and high-quality reporting. All our field operators are graduate geologists or geophysicists with data acquisition and interpretational experience able to give on site analysis and interpretations. For more information, please call 01939 210710 or email office@europeangeophysical.com.